Species Summary

Salmon Watcher Program volunteers recorded observations of all salmonid fish located during surveys, including chinook, coho, chum, and sockeye salmon, kokanee (resident form of sockeye), and trout (which may have been cutthroat or rainbow trout). The ratios of all fish observed, including unidentified fish, is depicted in Figure 12a a for the Lake Washington Watershed and 12b for Vashon Island.

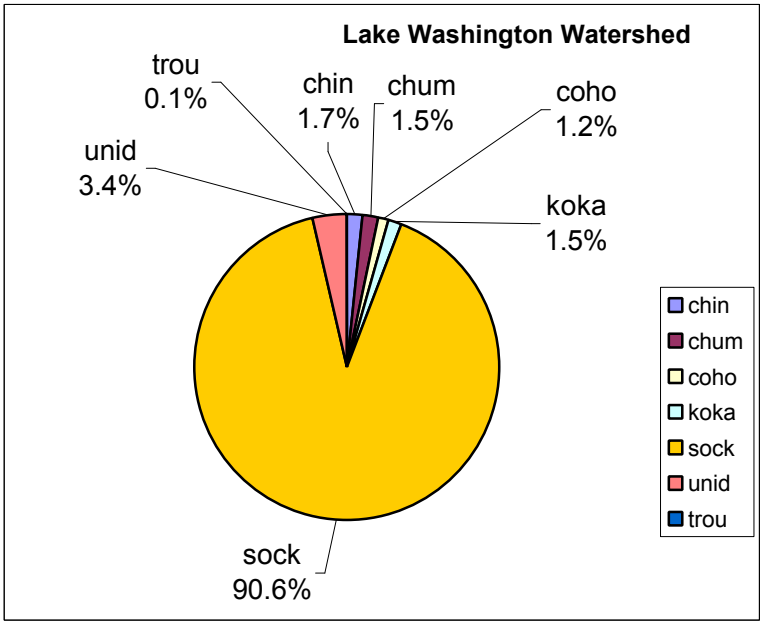
Of the 58 streams in the study area surveyed in 2002, sockeye were found in 17 streams. Coho were found in 22 streams, chinook in 16 streams, kokanee were observed in 7 streams, and trout were reported in 7 streams. Sockeye was by far the most abundant species counted by volunteers in the Lake Washington Watershed. Chum were observed in 3 streams on Vashon Island.

If a volunteer was unable to positively identify a fish species, the fish was tallied as "unidentified" (reporting a fish as unidentified was preferable to falsely identifying a species). Of the 31,493 total adult fish observed in 2002, 1,066 were unidentified (3.4 percent). Unidentified adult salmonids were counted in 22 streams.

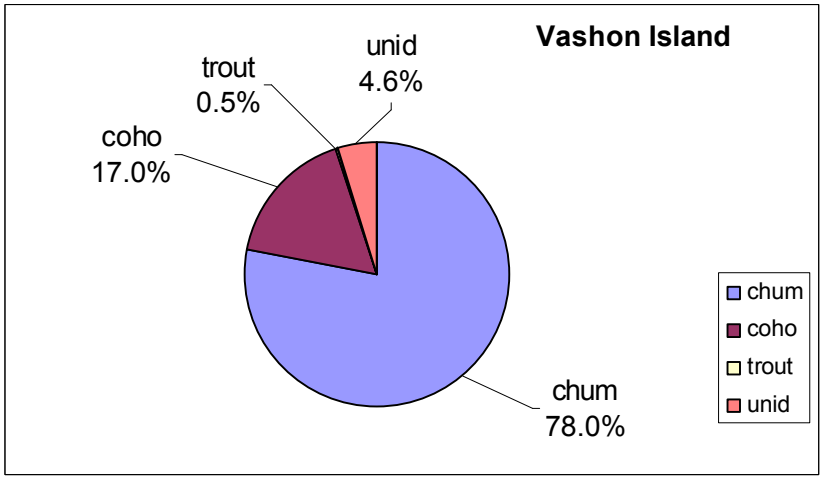
Volunteers made note of unidentified fry and/or juvenile fish in all basins in a total of 34 streams.

Figure 12. Percentage of total fish observed in 2002 by volunteers in (a) the Lake Washington Watershed and in (b) Vashon Island.

(a)



(b)



Tagged Fish

The year 2001 marked the first year of this program that volunteers were asked to record whether they could see if a fish had its adipose fin intact. The question as posed on the data sheet ("Were you able to identify presence/absence of adipose fin?") may have been too vague as different volunteers answered the question in different ways. The question was changed to "# of fish without adipose" for the 2002 season. It is impossible to quantitatively summarize what was observed; however, a cursory examination of responses to the question can reveal a few interesting pieces of information.

No sockeye from hatcheries in the Lake Washington Watershed had their adipose fins clipped. However, volunteers reported some sockeye without adipose fins in Bear Creek, Rock Creek, May Creek, Issaquah Creek, Little Bear Creek, and North Creek. This apparent discrepancy indicates that either the fish species was misidentified or the adipose fin was actually present, but the volunteer incorrectly reported its absence, or the adipose fin was not present because of predators or fishing gear (not as a result of being produced and released from a hatchery). A kokanee was reported missing an adipose fin, and as kokanee are not fin-clipped, the same possible explanations hold true for kokanee as they do for sockeye.

In the Lake Washington Watershed, coho missing adipose fins were found in Issaquah Creek, Thornton Creek, Swamp Creek, and Little Bear Creek. On Vashon, some coho in Shinglemill Creek were reported missing their adipose fins. Chinook missing their adipose fins were reported in Issaquah Creek and Rock Creek (in the Cedar River Basin).

Chinook Salmon

Chinook were observed in 6 basins in the study area during the 2002 surveys (Figure 13). A total of 726 live fish and 53 carcasses were found in 16 streams throughout the Lake Washington Watershed (in order of most to least fish seen): Issaquah Creek, Cottage Lake Creek, Sammamish River, Big Bear Creek, Rock Creek, Peters Creek, May Creek, Richards and Evans creeks, West Trib. Kelsey Creek, Little Bear Creek, Cedar River and North Creek, and 1 each in Tributary 0127 to Cottage Lake Creek, Kelsey Creek, and McAleer Creek.

Chinook were reported for the first time in Peters Creek, a tributary to the Sammamish River; they were seen up to RM 0.5. Chinook were reported by Salmon Watchers further upstream than in the past in Richards Creek (up to RM 1.6). Chinook were reported by Salmon Watchers further upstream than in the past in Cottage Lake Creek (up to RM 2.5); they were also seen for the first time in Cottage Lake Creek

Tributary 0127, which is at RM 0.14 past Cottage Lake (therefore further yet than the sighting at RM 2.5).

The known chinook distribution as observed by Salmon Watchers in 2002 is expanded in McAleer Creek to RM 2.1 when one chinook carcass was reported; previously, the furthest upstream chinook had been seen in McAleer Creek was at RM 1.1. Chinook were observed further in Little Bear Creek than in the past. Previously, only one chinook carcass had been reported by a volunteer in Little Bear Creek (at RM 0.2); in 2002, three live chinook reported on three separate occasions were seen at RM 1.5.

Figure 13. Distribution of chinook salmon in the program area based on Salmon Watcher observations
(http://dnr.metrokc.gov/wlr/waterres/salmon/Maps/2002/0306ChinookDistribution.pdf).
This link will open in your browser. Return to this document by clicking on Acrobat Reader again.

Sockeye Salmon

Sockeye were by far the most numerous fish counted by volunteers. Sockeye were observed in 6 basins (Figure 14). A total of 23,553 live fish and 4,773 carcasses were observed in 17 streams (in order of most to least fish seen): Cedar River, Big Bear Creek, Rock Creek, Little Bear Creek, Cottage Lake Creek, Sammamish River, North Creek, Evans Creek, Issaquah Creek, Richards Creek, May Creek, Kelsey Creek, McAleer Creek, Swamp Creek, Cold Creek, Forbes Creek, and Denny Creek. Because sockeye require a lake environment for part of their life history (Wydoski and Whitney 1979), they are not expected in Puget Sound streams, such as the streams on Vashon Island.

Sockeye were observed by Salmon Watchers for the first time in 2002 at three locations: Cold Creek (RM 0.8, near 176th Ave. NE), Forbes Creek (RM 0.2, Juanita Bay Park), and in Denny Creek (RM 0.1, Holmes Point Drive). In addition to those three streams, the known sockeye distribution as observed by Salmon Watchers in 2002 is expanded in McAleer Creek to RM 2.1 (Perkins and 2600 block), in Richards Creek to RM 1.6 (SE 30th St.), and in Cottage Lake Creek to RM 2.7 (159th).

Figure 14. Distribution of sockeye salmon in the program area based on Salmon Watcher observations
(http://dnr.metrokc.gov/wlr/waterres/salmon/Maps/2002/0306SockeyeDistribution.pdf).
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Coho Salmon

Coho were observed in 5 Lake Washington Watershed basins and on Vashon Island (Figure 15). A total of 255 live fish and 40 carcasses were found in 20 streams in the Lake Washington Watershed (in order of most to least fish seen): Big Bear Creek, Swamp Creek, Sammamish River, Issaquah Creek, Cold Creek, Little Bear Creek, May Creek, Richards Creek, Thornton Creek, Cottage Lake Creek, Denny Creek, Evans Creek, East Fork Issaquah Creek, Kelsey Creek, Coal Creek, Juanita Creek, McAleer Creek, Trib 0127 to Cottage Lake, Tributary to Coal Creek, and West Trib. Kelsey Creek. A total of 27 live coho were found in 3 streams on Vashon Island: Judd Creek, Shinglemill Creek, Christensen Creek.

Coho were reported for the first time in Denny Creek; they were seen up to RM 0.1. Coho were reported for the first time in Christensen Creek; they were seen at the mouth of the creek. Coho were reported for the first time in Tributary 0127 to Cottage Lake Creek; they were seen at RM 0.14 (Cottage Lake Park).

The known coho distribution as observed by Salmon Watchers is expanded up by a hair in Maple Leaf Creek, to 1.2 RM (N 100th St.).

Figure 15. Distribution of coho salmon in the program area based on Salmon Watcher observations
(http://dnr.metrokc.gov/wlr/waterres/salmon/Maps/2002/0306CohoDistribution.pdf)
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Kokanee

Kokanee, although not anadromous, are of interest to regional fisheries managers because their numbers appear to be depressed from historic levels. Kokanee were observed in 5 basins (Figure 16). A total of 436 live fish and 21 carcasses were found in 7 streams (in order of most to least fish seen): Lewis Creek, North Creek, Little Bear Creek, Big Bear Creek, the Sammamish River, and May and Cottage Lake creeks.

During the 2002 surveys, the known distribution of kokanee as observed by Salmon Watchers is expanded in Cottage Lake Creek to RM 2.7 and in May Creek to RM 0.2 (Lake Washington Blvd.). These kokanee observations in May Creek mark the first time kokanee had been reported by Salmon Watchers in that stream.

Figure 16. Distribution of kokanee in the program area based on Salmon Watcher observations
(http://dnr.metrokc.gov/wlr/waterres/salmon/Maps/2002/0306KokaneeDistribution.pdf)
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Chum

On Vashon Island, a total of 135 live chum and 35 carcasses were found in 3 streams (in order of most to least fish seen): Judd Creek, Fisher Creek, and Shinglemill Creek.

Other Species

Trout were reported in 6 streams in 4 basins, including Vashon. Trout may have been cutthroat or rainbow trout. Fish of unidentified species were observed throughout the study area. The Cedar River, Sammamish River, and Little Bear Creek had the most unidentified species reported.

References

Brannon, E.L., and E.O. Salo, editors. 1982. Proceedings, salmon and trout migratory behavior symposium. University of Washington, College of Fisheries, Seattle.

Vanderhoof, J. 2001. 2000 volunteer salmon watcher program in the Lake Washington Watershed. King County Department of Natural Resources, Seattle, WA.

Williams, R.W., R.M. Laramie, and J.J. Ames. 1975. A Catalog of Washington Streams and Salmon Utilization, Volume 1, Puget Sound. Washington Department of Fisheries, Olympia, WA.

Wydoski, R., and R. Whitney. 1979. Inland Fishes of Washington. University of Washington Press, Seattle, WA.

Appendices

A. Other Streams Outside the Program Area

B. Data Collection Form used in 2002

See next section for Appendices